

Claims

- [c1] 1. A method for creating anonymity in collecting patient data, the method comprising:
receiving a medical report for a patient including patient identification data;
searching a patient record for an anonymous patient identifier corresponding to said patient wherein said searching returns said anonymous patient identifier in response to locating said anonymous patient identifier and said searching returns a null value in response to not locating said anonymous patient identifier;
creating said anonymous patient identifier corresponding to said patient if said searching returns said null value;
adding said anonymous patient identifier to said medical report;
removing said patient identification data from said medical report; and
transmitting said medical report to a data repository in response to said removing.
- [c2] 2. The method of claim 1 wherein said anonymous patient identifier includes a linear transformation of a media access control address component, a date/time component and an anonymity supplement component.
- [c3] 3. The method of claim 2 wherein said date/time component includes a month, a day, a year, an hour, a minute, and a second corresponding to when said patient was first admitted.
- [c4] 4. The method of claim 2 wherein said anonymity supplement component includes a rotating number that is incremented each time a new said anonymity supplement is created.
- [c5] 5. The method of claim 2 wherein said linear transformation includes a non-singular matrix.
- [c6] 6. The method of claim 5 wherein said matrix is a three by three matrix.
- [c7] 7. The method of claim 5 wherein said matrix is a four by four matrix.
- [c8] 8. The method of claim 5 wherein said matrix is an n by n matrix.

- [c9] 9. The method of claim 1 wherein said patient identification data includes one of name, medical record number and social security number.
- [c10] 10. The method of claim 1 wherein said anonymous patient identifier is in an encrypted format on said patient record.
- [c11] 11. The method of claim 1 wherein said anonymous patient identifier is in a unencrypted format on said medical report.
- [c12] 12. The method of claim 1 wherein said creating said anonymous patient identifier includes:
receiving a media access control address;
applying a first linear transformation matrix to said media access control address resulting in a transformed media access control address;
receiving a date/time;
applying a second linear transformation matrix to said date/time resulting in a transformed date/time;
receiving an anonymity supplement;
applying a third linear transformation matrix to said anonymity supplement resulting in a transformed anonymity supplement concatenating said transformed media access control address, said transformed date/time and said transformed anonymity supplement resulting in said anonymous patient identifier;
encrypting said anonymous patient identifier resulting in an encrypted anonymous patient identifier; and
storing said encrypted anonymous patient identifier in said patient record.
- [c13] 13. The method of claim 12 wherein said first linear transformation matrix, said second linear transformation matrix and said third linear transformation matrix are the same matrices.
- [c14] 14. The method of claim 12 wherein two of said first linear transformation matrix, said second linear transformation matrix and said third linear transformation matrix are different matrices.
- [c15] 15. A method for creating anonymity in collecting patient data, the method

comprising:

receiving a medical report for a patient including patient identification data; searching a patient record for an anonymous patient identifier corresponding to said patient wherein said searching returns said anonymous patient identifier in response to locating said anonymous patient identifier and said searching returns a null value in response to not locating said anonymous patient identifier;

creating said anonymous patient identifier corresponding to said patient if said searching returns said null value, wherein said creating includes:

receiving a media access control address;

applying a first linear transformation matrix to said media access control address resulting in a transformed media access control address;

receiving a date/time;

applying a second linear transformation matrix to said date/time resulting in a transformed date/time;

receiving an anonymity supplement;

applying a third linear transformation matrix to said anonymity supplement resulting in a transformed anonymity supplement;

concatenating said transformed media access control address, said transformed date/time and said transformed anonymity supplement resulting in said anonymous patient identifier;

encrypting said anonymous patient identifier resulting in an encrypted anonymous patient identifier; and

storing said encrypted anonymous patient identifier in said patient record.;

adding said anonymous patient identifier to said medical report;

removing said patient identification data from said medical report; and
transmitting said medical report to a data repository in response to said
removing.

[c16]

16. A system for creating anonymity in collecting patient data, the system comprising:

a network; and

a host system in communication with said network, said host system including

software to implement the method comprising:

receiving over said network a medical report for a patient including patient identification data;

searching a patient record for an anonymous patient identifier corresponding to said patient wherein said searching returns said anonymous patient identifier in response to locating said anonymous patient identifier and said searching returns a null value in response to not locating said anonymous patient identifier;

creating said anonymous patient identifier corresponding to said patient if said searching returns said null value;

adding said anonymous patient identifier to said medical report;

removing said patient identification data from said medical report; and

transmitting said medical report to a data repository over said network in response to said removing.

- [c17] 17. The system of claim 16 wherein said network is an Internet.
 - [c18] 18. The system of claim 16 wherein said network is an intranet.
 - [c19] 19. The system of claim 16 wherein said creating said anonymous patient identifier includes:
 - receiving a media access control address;
 - applying a first linear transformation matrix to said media access control address resulting in a transformed media access control address;
 - receiving a date/time;
 - applying a second linear transformation matrix to said date/time resulting in a transformed date/time;
 - receiving an anonymity supplement;
 - applying a third linear transformation matrix to said anonymity supplement resulting in a transformed anonymity supplement;
 - concatenating said transformed media access control address, said transformed date/time and said transformed anonymity supplement resulting in said anonymous patient identifier;
 - encrypting said anonymous patient identifier resulting in an encrypted

anonymous patient identifier; and
storing said encrypted anonymous patient identifier in said patient record.

- [c20] 20. A computer program product for creating anonymity in collecting patient data, the product comprising:
a storage medium readable by a processing circuit and storing instructions for execution by the processing circuit for:
receiving a medical report for a patient including patient identification data;
searching a patient record for an anonymous patient identifier corresponding to said patient wherein said searching returns said anonymous patient identifier in response to locating said anonymous patient identifier and said searching returns a null value in response to not locating said anonymous patient identifier;
creating said anonymous patient identifier corresponding to said patient if said searching returns said null value;
adding said anonymous patient identifier to said medical report;
removing said patient identification data from said medical report; and
transmitting said medical report to a data repository in response to said removing.
- [c21] 21. The computer program product of claim 20 wherein said creating said anonymous patient identifier includes:
receiving a media access control address;
applying a first linear transformation matrix to said media access control address resulting in a transformed media access control address;
receiving a date/time;
applying a second linear transformation matrix to said date/time resulting in a transformed date/time;
receiving an anonymity supplement;
applying a third linear transformation matrix to said anonymity supplement resulting in a transformed anonymity supplement;
concatenating said transformed media access control address, said transformed date/time and said transformed anonymity supplement resulting in said anonymous patient identifier;

[c22] 22. An anonymous patient identifier encoding format for creating anonymity in collecting patient data, the format comprising:

a unique system identifier,
a patient identifier including a date/time component and an additional component to ensure uniqueness within said system; and wherein:
said anonymous patient identifier is stored in an encrypted format on a patient record; and
said anonymous patient identifier is stored in an unencrypted format on a medical report.

[c23] 23. The encoding format of claim 22 wherein said unique system identifier is a linear transformation applied to a media access control address.

[c24] 24. The encoding format of claim 22 wherein said date/time component is a linear transformation applied to the concatenation of a month, day, year, hour, minute and second corresponding to when said patient was first admitted.

[c25] 25. The encoding format of claim 22 wherein said additional component includes a linear transformation applied to the concatenation of a rotating number that is incremented each time a new said anonymity supplement is created.